

**AQA Geography**

**Paper 1: Living with the Physical Environment**

**Section A: The Challenge of Natural Hazards**

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| **Weather Hazards**  | **R** | **A** | **G** | **Revised**  |
| **Global atmospheric circulation helps to determine patterns of weather and climate.** |  |
| General atmospheric circulation model: **pressure belts**  |  |  |  |  |
| General atmospheric circulation model: **surface winds** |  |  |  |  |
| Tropical storms (hurricanes, cyclones, typhoons) develop as a result of particular physical conditions. |  |
| Global distribution of tropical storms (hurricanes, cyclones, typhoons). |  |  |  |  |
| An understanding of the relationship between tropical storms and general atmospheric circulation. |  |  |  |  |
| Causes of tropical storms and the sequence of their formation and development. |  |  |  |  |
| The structure and features of a tropical storm. |  |  |  |  |
| How climate change might affect the distribution, frequency and intensity of tropical storms |  |  |  |  |
| Tropical storms have significant effects on people and the environment. |  |
| Primary and secondary effects of tropical storms. |  |  |  |  |
| Immediate and long-term responses to tropical storms. |  |  |  |  |
| Use a **named example** of a tropical storm to show its effects and responses. |  |  |  |  |
| How monitoring, prediction, protection and planning can reduce the effects of tropical storms. |  |  |  |  |
| The UK is affected by a number of weather hazards. |  |
| An overview of types of weather hazard experienced in the UK. |  |  |  |  |
| Extreme weather events in the UK have impacts on human activity. |  |
| An **example** of a recent extreme weather event in the UK to illustrate: |  |  |  |  |
| * causes
 |  |  |  |  |
| * social, economic and environmental impacts
 |  |  |  |  |
| * how management strategies can reduce risk
 |  |  |  |  |
| Evidence that weather is becoming more extreme in the UK. |  |  |  |  |
| **Unit skills** | **R** | **A** | **G** |  |
| ICT skills (Word, PowerPoint, Research…) |  |  |  |  |
| Map skills |  |  |  |  |
| High quality literacy skills (can you write with sophisticated fluency?) |  |  |  |  |
| Interpreting data and trends |  |  |  |  |
| High quality evaluation skills (balanced arguments and your own opinions) |  |  |  |  |
| Ability to think synoptically (using content from a range of topics and units) |  |  |  |  |
| Other: | **R** | **A** | **G** |  |
| Understand the meaning of common command words like describe, explain, analyse |  |  |  |  |
| P.E.E.L Technique |  |  |  |  |

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| **Tectonic Hazards** | **R** | **A** | **G** | **Revised** |
| **Natural hazards pose major risks to people and property.** |  |
| Definition of a natural hazard. |  |  |  |  |
| Types of natural hazard. |  |  |  |  |
| Factors affecting hazard risk. |  |  |  |  |
| **Tectonic Hazards: Earthquakes and volcanic eruptions are the result of physical processes.** |  |
| Plate tectonics theory. |  |  |  |  |
| Global distribution of earthquakes and volcanic eruptions and their relationship to plate margins. (Where?) |  |  |  |  |
| Physical processes taking place at different types of plate margin (constructive, destructive and conservative) that lead to earthquakes and volcanic activity. What happens at each plate margin? (descriptions, diagrams) |
| **Convergent margins**: Oceanic to oceanic |  |  |  |  |
| **Convergent margins**: Oceanic to continental |  |  |  |  |
| **Convergent margins**: Continental to continental |  |
| **Divergent margins** |  |  |  |  |
| **Conservative margins** |  |  |  |  |
| Can you draw an annotated diagram to show what happens at each margin type? |  |  |  |  |
| What landforms can be found at different margins? |  |  |  |  |
| How are earthquakes measured? |  |  |  |  |
| What is the difference between the focus and the epicenter of an earthquake? |  |  |  |  |
| **The effects of, and responses to, a tectonic hazard vary between areas of contrasting levels of wealth** |  |
| Primary and secondary effects of a tectonic hazard. (earthquake / volcano) |  |  |  |  |
| Immediate and long-term responses to a tectonic hazard. (earthquake / volcano) |  |  |  |  |
| Use named examples to show how the effects and responses to a tectonic hazard vary between two areas of contrasting levels of wealth. |  |
| **Case study:**  |  |  |  |  |
| **Case study:** |  |  |  |  |
| **Management can reduce the effects of a tectonic hazard** |  |
| Reasons why people continue to live in areas at risk from a tectonic hazard. |  |  |  |  |
| How monitoring, prediction, protection and planning can reduce the risks from a tectonic hazard. |  |  |  |  |

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| **Climate Change** | **R** | **A** | **G** | **Revised**  |
| **Climate change is the result of natural and human factors, and has a range of effects.** |  |
| Evidence for climate change from the beginning of the Quaternary period to the present day. |  |  |  |  |
| Possible main **natural** causes of climate change: |  |
| 1. Solar output
 |  |  |  |  |
| 1. Orbital geometry
 |  |  |  |  |
| 1. Volcanic activity
 |  |  |  |  |
| Other possible natural causes (changes in atmospheric gas, surface reflection, tectonic activity |
| Possible **human** causes of climate change: |  |
| 1. Use of fossil fuels
 |  |  |  |  |
| 1. Agriculture
 |  |  |  |  |
| 1. Deforestation
 |  |  |  |  |
| Can you differentiate between natural and human causes of climate change? |  |  |  |  |
| What is the greenhouse effect? (annotated diagram + description in writing) |  |  |  |  |
| How are methane, carbon dioxide and nitrous oxide produced? |  |  |  |  |
| What are the effects of climate change on **people**? |  |  |  |  |
| What are the effects of climate change on the **environment**? |  |  |  |  |
| **Managing climate change involves both mitigation (reducing causes)** |  |
| Alternative energy production |  |  |  |  |
| Carbon capture |  |  |  |  |
| Planting trees |  |  |  |  |
| International agreements e.g. Rio de Janeiro, Kyoto, Paris (carbon credit, carbon sink) |  |  |  |  |
| **and adaptation (responding to change)** |  |
| Change in agricultural systems |  |  |  |  |
| Managing water supply |  |  |  |  |
| Reducing risk from rising sea levels |  |  |  |  |

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| **Cold Environments** | **R** | **A** | **G** | **Revised**  |
| **Cold environments (polar and tundra) have a range of distinctive characteristics** |  |
| The physical characteristics of a cold environment |  |  |  |  |
| The interdependence of climate, permafrost, soils, plants, animals and people. |  |
| How **plants** adapt to the physical conditions. |  |  |  |  |
| How **animals** adapt to the physical conditions. |  |  |  |  |
| Issues related to biodiversity. |  |  |  |  |
| **Development of cold environments creates opportunities and challenges.** |  |
| A **case study** of a cold environment to illustrate: |  |  |  |  |
| 1. development opportunities in cold environments:  |  |
| * mineral extraction
 |  |  |  |  |
| * energy
 |  |  |  |  |
| * fishing
 |  |  |  |  |
| * tourism
 |  |  |  |  |
| 2. challenges of developing cold environments:  |  |
| * extreme temperature
 |  |  |  |  |
| * inaccessibility
 |  |  |  |  |
| * provision of buildings
 |  |  |  |  |
| * infrastructure
 |  |  |  |  |
| **Cold environments are at risk from economic development.** |  |
| The value of cold environments as wilderness areas. |  |  |  |  |
| Why should these fragile environments be protected? |  |  |  |  |
| Strategies used to balance the needs of economic development and conservation in cold environments: |  |
| * use of technology
 |  |  |  |  |
| * role of governments
 |  |  |  |  |
| * international agreements
 |  |  |  |  |
| * conservation groups
 |  |  |  |  |

**Section B: The Living World**

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| **Ecosystems and Tropical Rainforests** | **R** | **A** | **G** | **Revised**  |
| **Ecosystems exist at a range of scales and involve the interaction between biotic and abiotic components.** |  |
| An example of a small scale UK ecosystem to illustrate the concept of interrelationships within a natural system. (e.g.  |  |  |  |  |
| An understanding of:  |  |
| * producers, consumers, decomposers
 |  |  |  |  |
| * food chain
 |  |  |  |  |
| * food web
 |  |  |  |  |
| * nutrient cycling
 |  |  |  |  |
| The balance between components. (producers, consumers, decomposers) |  |  |  |  |
| The impact on the ecosystem of changing one component. |  |  |  |  |
| An overview of the distribution and characteristics of large scale natural global ecosystems. |  |  |  |  |
| **Tropical rainforest ecosystems** have a range of distinctive characteristics. |  |
| The physical characteristics of a tropical rainforest |  |  |  |  |
| The interdependence of climate, water, soils, plants, animals and people. |  |  |  |  |
| How plants and animals adapt to the physical conditions. |  |  |  |  |
| Issues related to biodiversity |  |  |  |  |
| **Deforestation has economic and environmental impacts.** |  |
| Changing rates of deforestation. |  |  |  |  |
| A **case study** of a tropical rainforest to illustrate: |  |  |  |  |
| * causes of deforestation – subsistence and commercial farming, logging, road building, mineral extraction, energy development, settlement, population growth
 |  |  |  |  |
| * impacts of deforestation – economic development, soil erosion, contribution to climate change.
 |  |  |  |  |
| **Tropical rainforests need to be managed to be sustainable.** |  |
| Value of tropical rainforests to people and the environment. |  |  |  |  |
| Strategies used to manage the rainforest sustainably: |  |
| * selective logging and replanting
 |  |  |  |  |
| * conservation and education
 |  |  |  |  |
| * ecotourism and international agreements about the use of tropical hardwoods
 |  |  |  |  |
| * debt reduction
 |  |  |  |  |

**Section C: Physical Landscapes in the UK**

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| **Coastal Landscapes** | **R** | **A** | **G** | **Revised**  |
| I can describe the location of the major upland and lowland areas within the UK |  |  |  |  |
| I can describe the location of the major river systems within the UK |  |  |  |  |
| Coastal landscapes of the UK |  |
| I can define what the coast is |  |  |  |  |
| I can describe and explain the different types of **waves**  |  |  |  |  |
| I can name and explain the four processes of **erosion**  |  |  |  |  |
| I can name and explain the processes of **weathering** |  |
| I can name and explain the processes of **mass movement** |  |  |  |  |
| I can describe **erosional landforms** and the sequence of (arch, caves, stacks, stump, wave cut platforms, wave cut notch) are formed. |  |
| I can describe and explain the process of **mass movement** and **slumping**  |  |  |  |  |
| I can explain, using an example, how **erosion** and **deposition** will impact on the people and the environment at the coast.  |  |  |  |  |
| I can describe the processes of **transportation** in the coastal zone. (Longshore drift and traction, saltation, suspension and solution) |  |  |  |  |
| I can explain the reasons why sediment is **deposited** on the coast. |  |  |  |  |
| I can explain how **depositional landforms** (beaches, spit and bars) are formed. |  |
| I can describe and explain methods of **hard** and **soft** **engineering** using an example. |  |  |  |  |
| I can evaluate the cost and benefits of **hard** and **soft engineering** using an example. |  |  |  |  |
| I can explain why people have different views about the way the coast in managed and the conflicts this may cause using an example. |  |  |  |  |
| I can identify on an OS map all of the coastal landforms and use 4 & 6 fig grid references to locate them on a map |  |  |  |  |
| River landscapes of the UK |  |
| I can describe how a rivers **long profile** and **cross profile** varies over it’s course |  |  |  |  |
| I can explain how **vertical** and **lateral** erosion changes the cross profile of a river |  |  |  |  |
| I can explain the four process of **erosion** |  |
| I can describe the four processes of **transportation** in a river |  |  |  |  |
| I can explain the reasons why a river **deposits** its eroded material |  |  |  |  |
| I can explain how **interlocking spurs,** **waterfalls** & **gorges** are formed |  |  |  |  |
| I can explain that **meanders** are formed by erosion & deposition |  |  |  |  |
| I can describe an **Ox Bow lake** and explain how they form from meanders |  |  |  |  |
| I can explain how a **flood plain**, levee and estuaries are formed  |  |  |  |  |
| I can use an example of a river valley to demonstrate my understanding of the erosional and depositional landforms |  |  |  |  |
| I can explain how physical and human factors affect the risk of flooding including precipitation, geology, relief and land use.  |  |  |  |  |
| I can explain what river **discharge** means & how it is shown on a **hydrograph** |  |  |  |  |
| I can explain at least 4 **factors** (things!) that will either **increase or decrease** river discharge |  |  |  |  |
| I can explain how **hard** **engineering** can reduce the risk of flooding or the effects of flooding |  |  |  |  |
| I can explain how **soft** **engineering** can reduce the risk of flooding or the effects of flooding |  |  |  |  |
| Using an example I can explain 1. Why the scheme was required
2. How the area was managed
3. The social, environmental and economic issues.
 |  |  |  |  |
| I can identify on an OS map all of the river landforms and use 4 & 6 fig grid references to locate them on a map. |  |  |  |  |